



United States
Department of
Agriculture



Natural Resources
Conservation
Service

Oregon Basin Outlook Report

February 1, 2011



The above photo was taken at the New Dutchman Flat #3 snow course near Mt. Bachelor, during the February 1 snow survey. This particular snow course gained 2.7" of SWE since January 1, yet lost 32" of overall snow depth due to a mid-month rain-on-snow event. Many low-elevation snow measurement sites across Oregon have lost water content in the snowpack due to January's rain-on-snow event, while measurement sites in the higher elevations have gained water content.

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General Outlook

February 1, 2011

SUMMARY

At the time of the last Water Supply Outlook Report in January, the snowpack was robust throughout Oregon. January is usually a month for building the snowpack, but by mid-January, everything had changed. A rain-on-snow event began on January 12th and lasted through January 20th, reducing snow cover and snow depths throughout the state. Deeper snowpacks in the higher elevations were able to absorb much of the rainfall, effectively gaining snow water content. Shallower snowpacks in the lower elevations suffered high losses in snow water content and snow covered area. Since mid-January, persistent ridging has kept the state dry, limiting precipitation throughout Oregon.

The change in snowpack conditions since January 1 has significantly affected the streamflow forecasts published in this report. Water users in Oregon are advised to keep informed of snow and precipitation conditions through the rest of the winter. This report will be updated monthly through June.

SNOWPACK

There has been a significant decline in snowpack conditions since the January Water Supply Outlook Report. Snow water equivalent was below average to well below average on February 1 in most of Oregon's basins. The Owhyee and Malheur basins and Harney County were the exceptions in the state with average snow water content as of February 1.

Statewide, the February 1 snowpack, as measured at SNOTEL sites throughout the state, was 79 percent of average, a decrease from 131 percent of average on January 1. Snow surveyors observed high snow densities at all sites during the February 1 surveys. Aerial extent of snow cover and snow depth varied with elevation and aspect. Snow measurements were collected at 77 SNOTEL sites 42 snow courses and 26 aerial markers in Oregon this month.

PRECIPITATION

A significant storm event brought warm rains to the state during the Martin Luther King holiday weekend. Rain-on-snow resulted in high run off and flooding, particularly in the Willamette, Sandy and Clackamas river basins.

Since the beginning of the water year, total precipitation has stayed above average due to wet conditions early in the season. In normal years, approximately 60 percent of annual precipitation has usually fallen at Oregon SNOTEL sites by February 1.

January precipitation ranged from 39 percent of average in Lake County and Goose Lake basin to 106 percent of average in the Lower Columbia basin. Since the beginning of the water year, total precipitation ranges from 105 percent of average in the Rogue and Umpqua basin to 132 percent of average in the Owyhee, Malheur and Harney basins.

RESERVOIRS

The mid-January precipitation event brought an increase in inflow to reservoirs throughout the state. Some reservoirs began to fill with the early runoff, while others detained then released the high flows.

Total storage on February 1 at the 26 major Oregon reservoirs analyzed in this publication was 91 percent of average. A total of 1,699,200 acre feet of water were stored on February 1, representing 53 percent of useable capacity. Last year at this time, these same reservoirs stored 1,170,900 acre feet of water.

STREAMFLOW

Many summer streamflow forecasts have declined since last month's publication, due to the drier than normal January experienced by most basins. Despite the declines, streamflows are expected to be near to above normal throughout the state. Summer low flows are predicted to occur near their average date, but the range of uncertainty is still quite broad at this point in the season. Updates to streamflow forecasts will be reflected in future editions of the Oregon Water Supply Outlook Report.

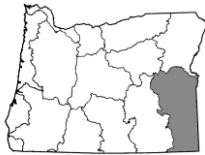
A summary of streamflow forecasts for Oregon follows:

STREAM	PERIOD	PERCENT OF AVERAGE
Owyhee Reservoir Inflow	Apr-Sep	117
Grande Ronde R at La Grande	Apr-Sep	102
Umatilla R at Pendleton	Apr-Sep	111
Deschutes R at Benham Falls	Apr-Sep	99
MF Willamette R bl NF	Apr-Sep	95
Rogue R at Raygold	Apr-Sep	100
Upper Klamath Lake Inflow	Apr-Sep	100
Silvies R nr Burns	Apr-Sept	119

Some of these forecasts assume that normal weather conditions will occur from now to the end of the forecast period.

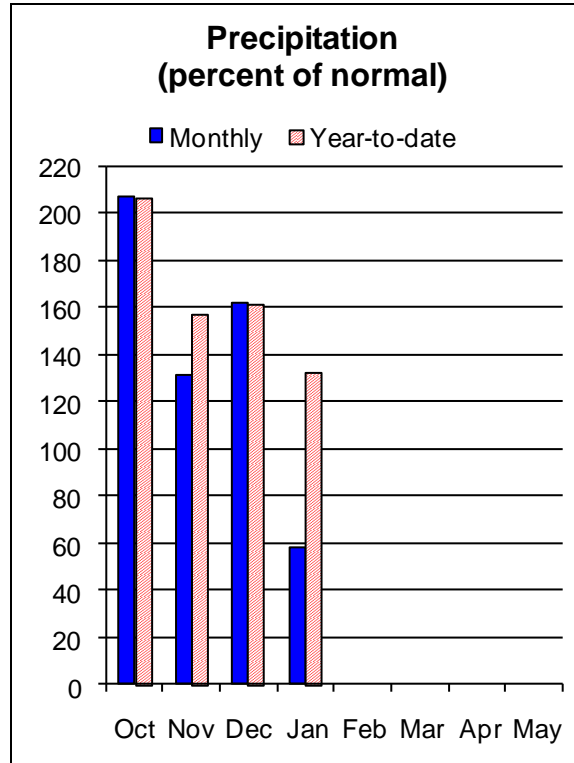
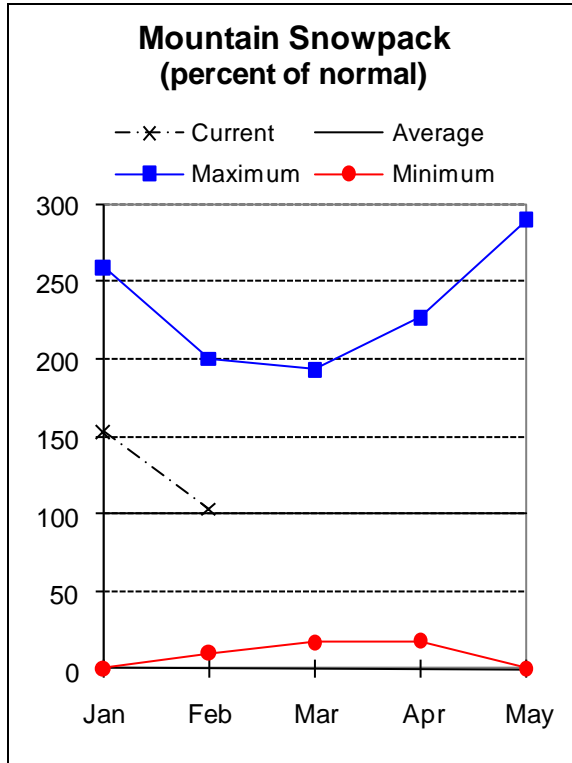
The forecasts in this bulletin are a result of coordinated activity between the Natural Resources Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators. This report will be updated monthly, February through June.



Owyhee and Malheur Basins

February 1, 2011



Water Supply Outlook

January is the first month since the beginning of the water year to post below average precipitation in the Owyhee and Malheur basins. January precipitation measured 58 percent of average. As of February 1, total water year precipitation in the basin was 132 percent of average, the highest in the state. Most SNOTEL sites and snow courses in the basin gained snow water this month, although snow depth decreased sharply during the mid-January rain-on-snow event. On February 1, the snowpack measured 103 percent of average. Snow measurements were gathered at 10 SNOTEL sites, 2 snow courses and 15 aerial markers for the February survey.

Runoff from winter storms has benefited reservoirs in the basin. February 1 storage at the four irrigation reservoirs in the Owyhee and Malheur basins was 79 percent of average and 45 percent of capacity, a significant improvement since last month.

The April through September streamflow forecasts in the Owyhee and Malheur basins range from 117 percent of average for the Owyhee Reservoir Inflow to 121 percent of average for the Malheur River near Drewsey. This represents a significant decline in expected summer flow from last month's forecast. At this point in the season, water users in the Owyhee and Malheur can expect above average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:
Ontario - (541) 889-7637

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

OWYHEE AND MALHEUR BASINS
Streamflow Forecasts - February 1, 2011

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90%	70%	50%		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Malheur R nr Drewsey	FEB-JUL	94	128	154	121	182	230	127
	APR-SEP	52	75	92	121	111	143	76
NF Malheur R at Beulah (2)	FEB-JUL	63	89	109	121	131	167	90
Owyhee R bl Owyhee Dam (2)	FEB-JUL	480	670	820	117	985	1250	700
	FEB-SEP	510	705	855	117	1020	1290	730
	APR-SEP	275	405	505	117	615	805	430
Owyhee R nr Rome	FEB-JUL	440	635	765	117	895	1090	655
	FEB-SEP	460	655	790	117	925	1120	675
	APR-SEP	230	375	470	118	565	710	400

OWYHEE AND MALHEUR BASINS
Reservoir Storage (1000 AF) - End of January

OWYHEE AND MALHEUR BASINS
Watershed Snowpack Analysis - February 1, 2011

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEULAH RES	60.0	25.5	12.7	28.5	Owyhee	19	108	103
BULLY CREEK	30.0	13.7	8.0	13.6	Upper Malheur	6	92	95
OWYHEE	715.0	355.6	186.0	438.3	Jordan Creek	3	102	109
WARMSPRINGS	191.0	53.9	15.3	87.7	Bully Creek	0	0	0
					Willow Creek	2	93	137

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

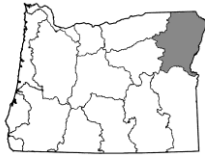
The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service Office:

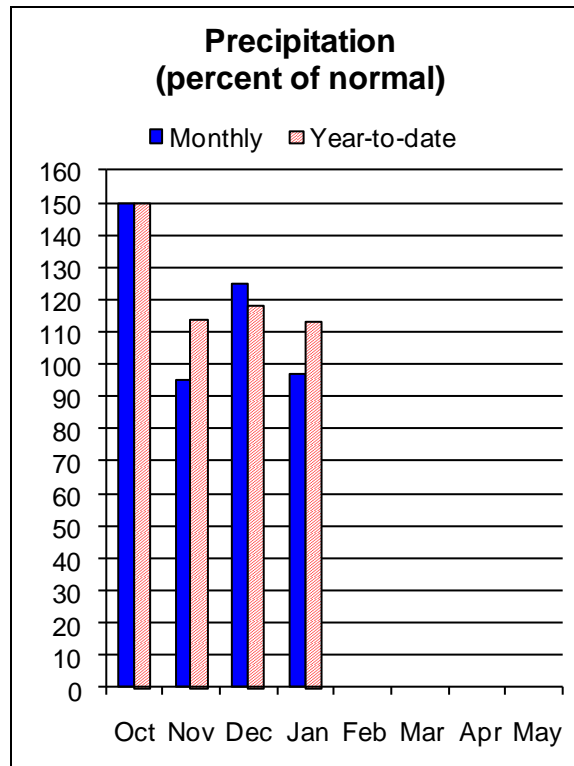
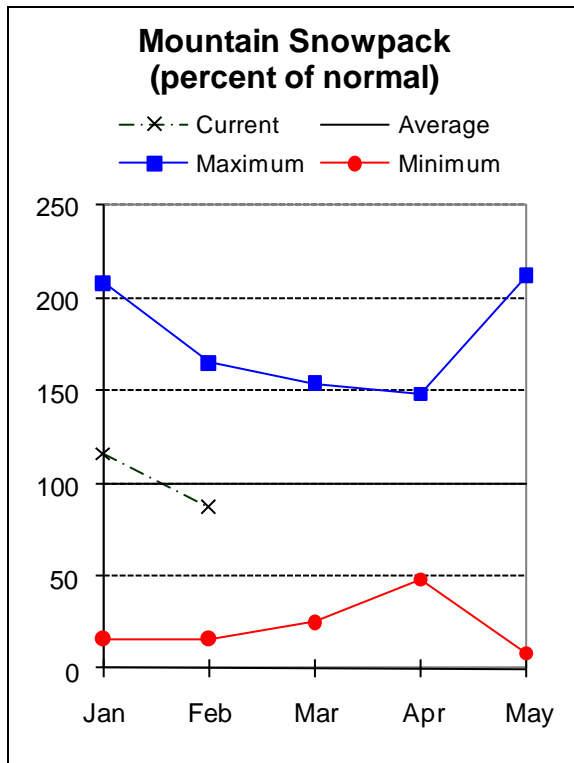
Ontario - (541) 889-7637

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>



Burnt, Powder, Grand Ronde, and Imnaha Basins

February 1, 2011



Water Supply Outlook

The Burnt, Powder, Pine, Grande Ronde and Imnaha basins have had abundant precipitation so far this water year. As of February 1, total water year precipitation in the basin was 113 percent of average. Precipitation for the month of January was 97 percent of average. Most of the snow measurement sites in the basin gained snow water this month, with only a few recording losses. Most of the SNOTEL sites that lost snow water were in the Blue Mountains. The neighboring Wallowa Mountains had a deeper snowpack, and were better able to retain the water from the rain-on-snow event. The February 1 snowpack was 87 percent of average. Snow measurements were gathered at 16 SNOTEL sites, 8 snow courses and 5 aerial markers during the February survey.

The abundant precipitation since the beginning of the water year has increased reservoir storage in the basin. February 1 storage at Phillips Lake, Thief Valley and Unity reservoirs was 101 percent of average and 61 percent of capacity. The April through September streamflow forecasts range from 92 percent of average for Bear Creek near Wallowa to 118 percent of average for the Burnt River near Hereford. Elsewhere in the basin, the Imnaha River at Imnaha is forecast to be 107 percent of average for the April through September period. At this point in the season, water users in the basin can expect near to above average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:
Enterprise- (541) 426-4588; Baker City - (541) 523-7121; LaGrande - (541) 963-4178
Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS
Streamflow Forecasts - February 1, 2011

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Bear Ck nr Wallowa	APR-SEP	47	55	60	92	65	73	65
Burnt nr Hereford (2)	FEB-JUL	49	60	67	118	74	85	57
	APR-SEP	29	39	46	118	53	63	39
Catherine Ck nr Union	APR-JUL	50	58	64	103	70	78	62
	APR-SEP	54	62	68	103	74	82	66
Deer Ck nr Sumpter	FEB-JUL	13.2	16.5	18.8	97	21	24	19.4
Grande Ronde R at La Grande	MAR-JUL	176	220	250	101	280	325	247
	APR-SEP	125	164	191	102	220	255	188
Grande Ronde R at Troy (1)	MAR-JUL	1180	1470	1600	101	1730	2020	1580
	APR-SEP	970	1250	1380	101	1510	1790	1370
Imnaha R at Imnaha	APR-JUL	210	260	290	107	320	370	270
	APR-SEP	235	280	315	107	350	395	295
Lostine R nr Lostine	APR-JUL	101	110	115	103	120	129	112
	APR-SEP	109	119	125	103	131	141	121
Pine Ck nr Oxbow	FEB-JUL	127	168	196	94	225	265	208
	APR-JUL	89	118	137	93	156	185	148
	APR-SEP	94	123	143	93	163	192	154
Powder R nr Sumpter	FEB-JUL	58	72	81	110	90	104	74
	APR-JUL	44	56	64	110	72	84	58
	APR-SEP	44	56	65	110	74	86	59
Wolf Ck Reservoir Inflow (2)	MAR-JUN	12.1	15.5	17.8	110	20	24	16.2

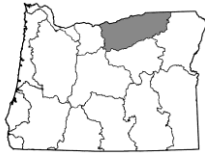
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BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS Reservoir Storage (1000 AF) - End of January					BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS Watershed Snowpack Analysis - February 1, 2011			
Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	% of Average
PHILLIPS LAKE	73.5	46.0	39.6	40.8	Upper Grande Ronde	11	112	99
THIEF VALLEY	17.4	13.8	13.7	16.5	Wallowa	9	114	91
UNITY	25.2	10.8	8.2	12.9	Imnaha	6	103	81
WALLOWA LAKE	37.5	14.2	12.3	17.9	Powder	13	109	89
WOLF CREEK	10.4	4.5	3.7	3.2	Burnt	4	105	107

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

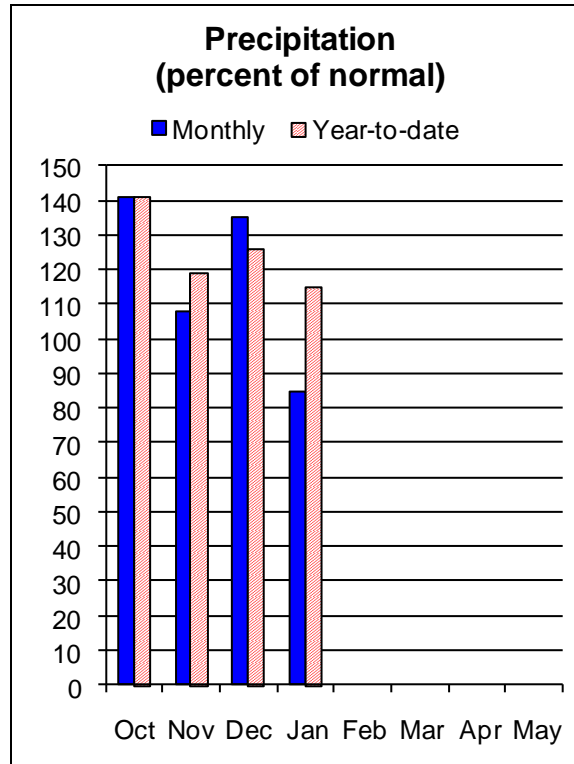
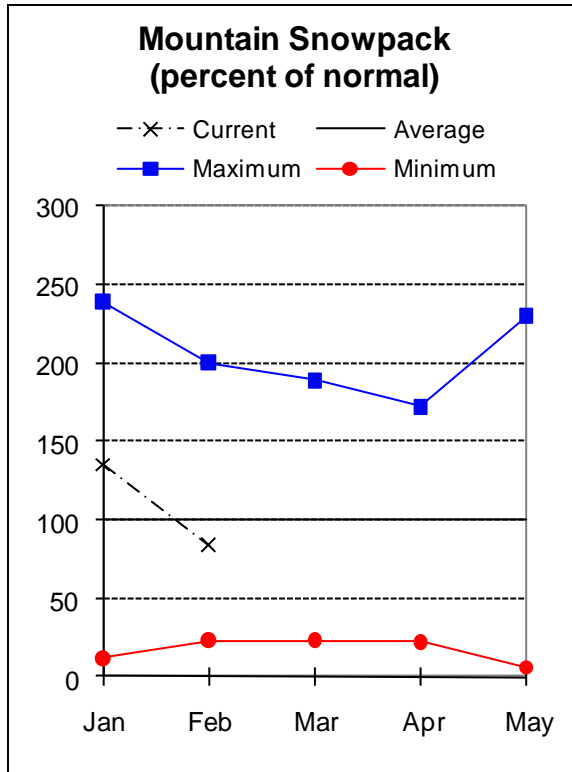
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Umatilla, Walla Walla, Willow Rock, and Lower John Day Basins

February 1, 2011



Water Supply Outlook

As of February 1, total water year precipitation in the Umatilla, Walla Walla, Willow, Rock and Lower John Day Basins was 115 percent of average, a significant decline since last month. Precipitation for the month of January was 85 percent of average. All of the snow measurement sites in the basin suffered a net loss in snow depth during January. There was a net loss of snow water at 5 out of 9 snow measurement sites in the basin during January. Shallower snow depths in the Blue Mountains were less able to absorb the mid-January rain-on-snow event. On February 1, the snowpack in the basin as measured at 7 SNOTEL sites and 2 snow courses was 84 percent of average.

The February 1 storage at Cold Springs and MacKay reservoirs was 123 percent of average and 55 percent of capacity. Last year at this same time, reservoir storage was only 16 percent of capacity. The April through September streamflow forecasts range from 108 percent of average for the South Fork Walla Walla near Milton Freewater to 125 percent of average for Butter Creek near Pine City. Elsewhere in the basin, McKay Creek near Pilot Rock is forecast to be 122 percent of average for the April through September period. At this point in the season, water users in the basin can expect near to above average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:

Pendleton - (541) 278-8049; Heppner - (541) 676-5021; Condon - (541) 384-2671

Or visit: <http://www.wcc.nrcs.usda.gov/cgi-bin/bor.pl>

UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS
Streamflow Forecasts - February 1, 2011

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)			
		30% (1000AF)	10% (1000AF)					
Butter Ck nr Pine City	MAR-JUL	12.6	16.3	18.8	125	21	25	15.0
	APR-SEP	8.2	10.9	12.7	125	14.5	17.2	10.2
McKay Ck nr Pilot Rock	APR-SEP	14.4	25	33	122	41	52	27
Rhea Ck nr Heppner	FEB-JUL	11.3	15.0	17.6	130	20	24	13.5
Umatilla R ab Meacham Ck nr Gibbon	APR-JUL	59	71	80	110	89	101	73
	MAR-SEP	92	107	117	110	127	142	106
	APR-SEP	66	78	87	110	96	108	79
Umatilla R at Pendleton	APR-JUL	117	146	166	111	186	215	149
	MAR-SEP	198	230	255	111	280	310	230
	APR-SEP	122	152	172	111	192	220	155
SF Walla Walla R nr Milton-Freewater	APR-JUL	47	54	58	107	62	69	54
	MAR-SEP	73	81	87	107	93	101	81
	APR-SEP	60	67	72	108	77	84	67
Willow Ck ab Willow Ck Lake nr Heppn	FEB-JUL	11.0	14.3	16.6	125	18.9	22	13.3
	APR-JUL	5.1	7.5	9.2	124	10.9	13.3	7.4

UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS
Reservoir Storage (1000 AF) - End of January

UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY
BASINS Watershed Snowpack Analysis - February 1, 2011

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
COLD SPRINGS	50.0	13.2	7.2	21.4	Walla Walla	4	99	76
MCKAY	73.8	54.9	12.5	34.1	Umatilla	7	113	92
WILLOW CREEK	1.8	0.6	0.2	---	McKay Creek	4	117	87

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service Office:

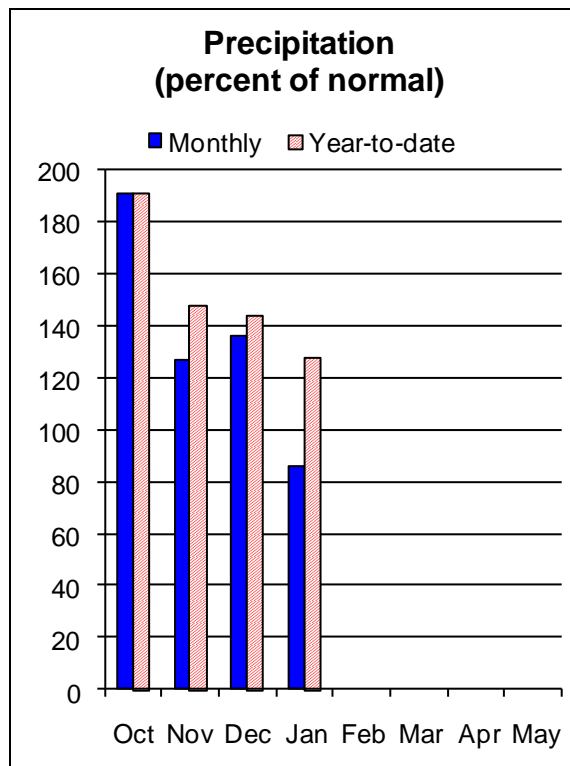
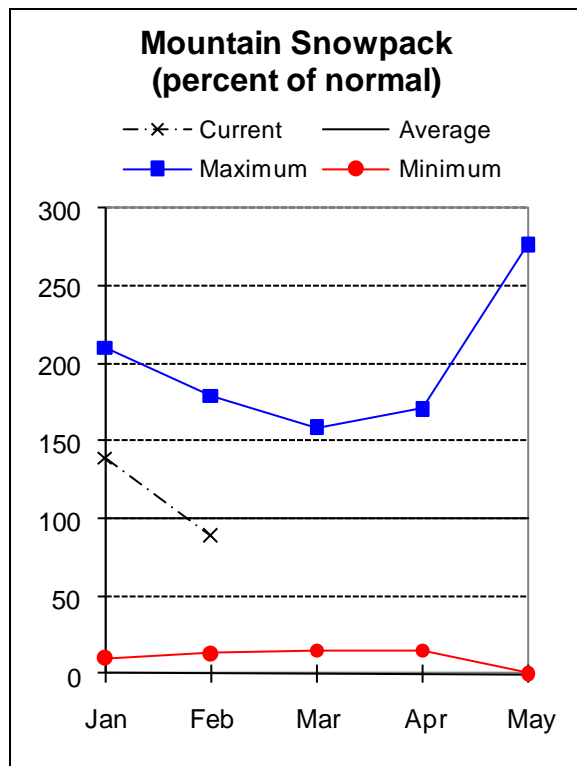
Pendleton - (541) 278-8049; Heppner - (541) 676-5021; Condon - (541) 384-2671

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>



Upper John Day Basin

February 1, 2011



Water Supply Outlook

The Upper John Day basin has received above average precipitation so far this water year. January was the first month this water year to record below average precipitation in the Upper John Day. January precipitation was 86 percent of average.

All of the snow measurement sites in the Upper John Day basin suffered a net loss in snow depth during January. Ten out of 16 snow measurement sites in the basin had slight gains in snow water content. The greatest gains in snow water occurred at elevations above 5800 feet. On February 1, the snowpack in the Upper John Day was 89 percent of average as measured at 13 SNOTEL sites and 4 snow courses.

The April through September streamflow forecasts range from 92 percent of average for Camas Creek near Ukiah to 118 percent of average for Strawberry Creek near Prairie City. This represents about a 10 percentage point decline in expected summer flow from last month's forecast. At this point in the season, water users in the Upper John Day can expect near to slightly above average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:
John Day - (541) 575-0135

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

UPPER JOHN DAY BASIN
Streamflow Forecasts - February 1, 2011

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90%	70%	50%		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Camas Ck nr Ukiah	MAR-JUL	32	42	48	92	54	64	52
	APR-SEP	20	29	35	92	41	50	38
MF John Day R at Ritter	MAR-JUL	128	160	181	114	200	235	159
	APR-SEP	100	127	146	114	165	192	128
NF John Day R at Monument	MAR-JUL	650	800	900	114	1000	1150	790
	APR-SEP	490	615	700	114	785	910	615
Mountain Ck nr Mitchell	FEB-JUL	4.4	6.6	8.1	116	9.6	11.8	7.0
	APR-SEP	2.6	4.2	5.3	115	6.4	8.0	4.6
Strawberry Ck nr Prairie City	MAR-JUL	6.1	7.7	8.7	118	9.7	11.3	7.4
	APR-SEP	6.5	8.1	9.2	118	10.3	11.9	7.8

UPPER JOHN DAY BASIN Reservoir Storage (1000 AF) - End of January					UPPER JOHN DAY BASIN Watershed Snowpack Analysis - February 1, 2011			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					North Fork John Day	7	102	79
					John Day above Kimberly	5	122	98

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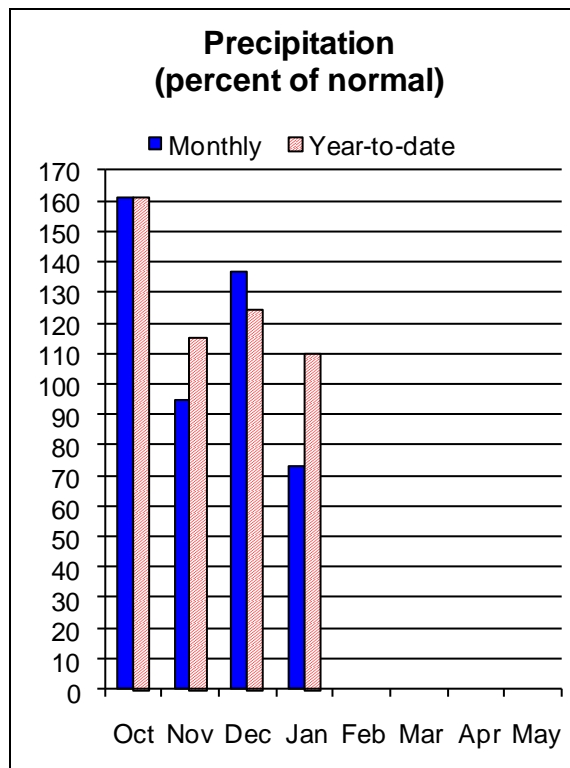
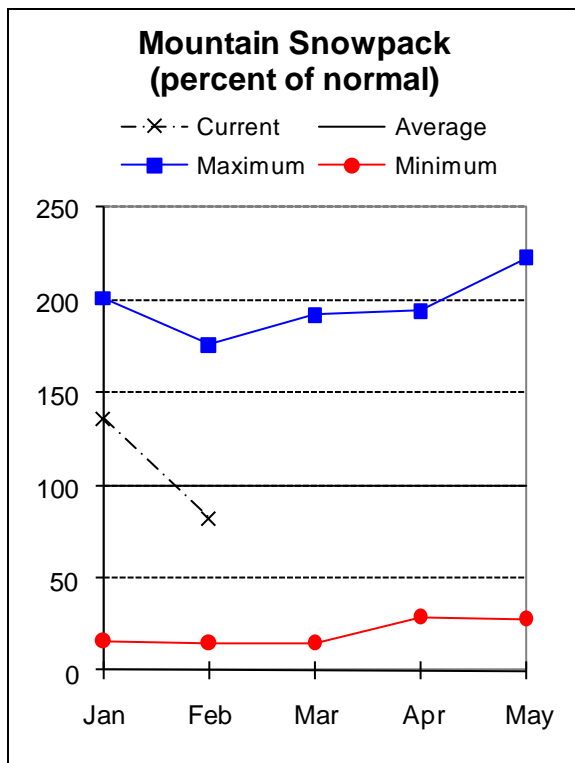
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John Day - (541) 575-0135
Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>



Upper Deschutes and Crooked Basins

February 1, 2011



Water Supply Outlook

There has been a significant change in the snowpack of the Upper Deschutes and Crooked River basin since last month. On February 1, the snowpack in the basin was 82 percent of average, down from 136 percent of average on January 1. Ten out of 18 snow measurement sites in the Upper Deschutes and Crooked River basins lost snow water this past month. Snow measurement sites above 5,600 feet generally had a net gain of snow water. Precipitation for the month of January was 73 percent of average. Since the beginning of the water year, precipitation in the Upper Deschutes and Crooked river basin has been 110 percent of average.

The February 1 storage at five irrigation reservoirs in the Upper Deschutes and Crooked River basins was 112 percent of average or 74 percent of capacity, a small improvement from last month. The April through September streamflow forecasts range from 99 percent of average for the Deschutes River at Benham Falls to 118 percent of average for Ochoco Reservoir Inflow. Elsewhere in the basin, Prineville Reservoir Inflow is forecast to be 117 percent of average for the April through September period. The February streamflow forecasts represent a slight decline from the January report. At this point in the season, water users in the Upper Deschutes and Crooked River basins can expect near to slightly above average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:
Redmond (541) 923-4358

Or visit: <http://www.wcc.nrcs.usda.gov/cgi-bin/bor.pl>

UPPER DESCHUTES AND CROOKED BASINS
Streamflow Forecasts - February 1, 2011

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====								
Crane Prairie Reservoir Inflow (2)	FEB-JUL	69	79	86	110	93	103	78
	APR-JUL	53	60	65	110	70	77	59
	FEB-SEP	101	114	123	110	132	145	112
	APR-SEP	83	94	102	110	110	121	93
=====								
Crescent Ck nr Crescent (2)	FEB-JUL	13.9	21	25	109	29	36	23
	APR-JUL	10.3	15.4	18.9	110	22	28	17.2
	FEB-SEP	18.4	25	30	111	35	42	27
	APR-SEP	14.1	19.4	23	110	27	32	21
=====								
Deschutes R at Benham Falls nr Bend	FEB-JUL	430	470	495	99	520	560	500
	APR-JUL	310	330	345	99	360	380	350
	FEB-SEP	595	645	675	99	705	755	680
	APR-SEP	465	500	520	99	540	575	525
=====								
Deschutes R bl Snow Ck nr La Pine	FEB-JUL	34	42	47	104	52	60	45
	APR-JUL	25	30	34	103	38	43	33
	FEB-SEP	58	68	74	104	80	90	71
	APR-SEP	48	56	61	103	66	74	59
=====								
Little Deschutes R nr La Pine (2)	FEB-JUL	77	98	112	111	126	147	101
	APR-JUL	60	71	79	111	87	98	71
	FEB-SEP	84	106	122	111	138	160	110
	APR-SEP	66	80	89	111	98	112	80
=====								
Ochoco Reservoir Inflow (2)	FEB-JUL	34	44	51	119	58	68	43
	APR-JUL	16.2	22	26	118	30	36	22
	FEB-SEP	34	44	51	119	58	68	43
	APR-SEP	15.7	22	26	118	30	36	22
=====								
Prineville Reservoir Inflow (2)	FEB-JUL	158	220	260	118	300	360	221
	APR-JUL	67	102	126	117	150	185	108
	FEB-SEP	156	220	260	117	300	365	222
	APR-SEP	67	103	128	117	153	189	109
=====								

For more information contact your local Natural Resources Conservation Service Office:
Redmond (541) 923-4358
Or visit: <http://www.wcc.nrcs.usda.gov/cgi-bin/bor.pl>

UPPER DESCHUTES AND CROOKED BASINS
Streamflow Forecasts - February 1, 2011

		<<===== Drier ===== Future Conditions ===== Wetter =====>>									
Forecast Point	Forecast Period	Chance Of Exceeding *									
		90%		70%		50%		30%		10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)	(1000AF)		
Whychus Ck nr Sisters	FEB-JUL	37	41	44	102	47	51	43			
	APR-JUL	33	36	37	103	38	41	36			
	FEB-SEP	46	51	55	102	59	64	54			
	APR-SEP	44	48	50	102	52	56	49			

UPPER DESCHUTES AND CROOKED BASINS
Reservoir Storage (1000 AF) - End of January

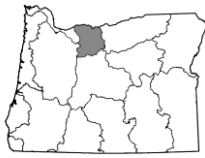
UPPER DESCHUTES AND CROOKED BASINS
Watershed Snowpack Analysis - February 1, 2011

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CRANE PRAIRIE	55.3	38.7	37.6	39.6	Crooked	4	100	98
CRESCENT LAKE	86.9	69.6	66.7	49.1	Little Deschutes	4	106	85
OCHOCO	47.5	30.6	18.6	21.0	Deschutes above Wickiup R	4	117	84
PRINEVILLE	153.0	98.7	93.7	90.0	Tumalo and Squaw Creeks	5	123	84
WICKIUP	200.0	165.6	180.1	161.6				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

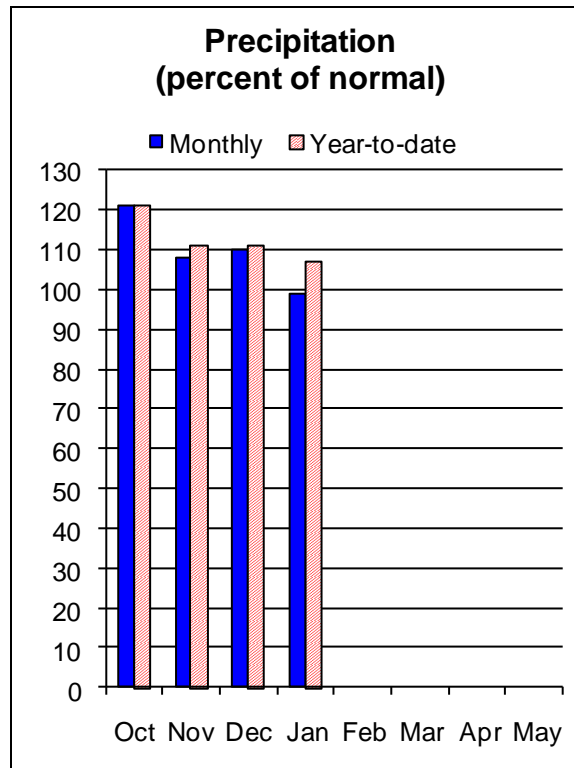
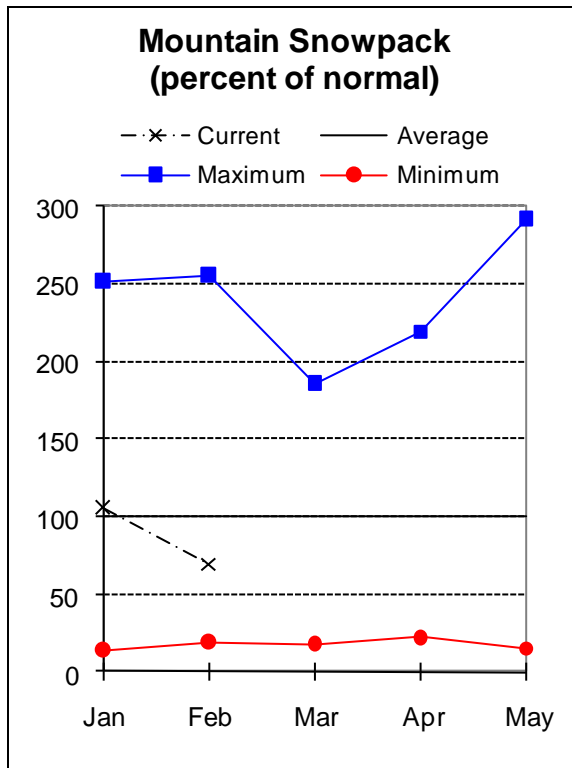
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

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Hood, Mile Creeks, and Lower Deschutes Basins

February 1, 2011



Water Supply Outlook

Seven out of 11 snow measurement sites across the Hood, Mile Creeks and Lower Deschutes Basins lost snow water equivalent as a result of the mid-January rain-on-snow event. In general, sites below 4,400 feet lost snow water, while those above that elevation gained snow water. All of the snow measurement sites in the basin suffered a net loss in snow depth during January. The February 1 snowpack was 69 percent of average, a drop from 106 percent of average on January 1. The snowpack in the basin was measured at 8 SNOTEL sites and 3 snow courses this month.

Total precipitation for the month of January was near average, although it fell mostly as rain rather than snow. Since the beginning of the water year, precipitation has been 107 percent of average.

The April through September streamflow forecast for the Hood River at Tucker Bridge is 92 percent of average. This represents a small decline from the forecast issued in January. At this point in the season, water users in the basin can anticipate average to slightly below average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:
The Dalles (541) 296-6178

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS
Streamflow Forecasts - February 1, 2011

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
WF Hood River nr Dee	APR-JUL	72	94	109	90	124	146	121
Hood R At Tucker Bridge	APR-JUL	159	190	210	92	230	260	228
	APR-SEP	195	230	250	92	270	305	271

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS
Reservoir Storage (1000 AF) - End of January

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS
Watershed Snowpack Analysis - February 1, 2011

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CLEAR LAKE (WASCO)	11.9	3.8	3.3	3.7	Hood River	7	100	70
					Mile Creeks	2	84	69
					White River	7	100	62

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

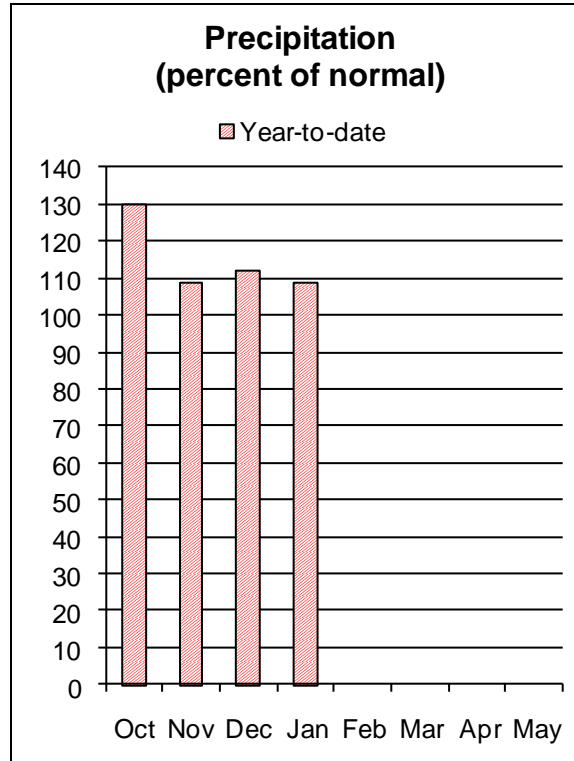
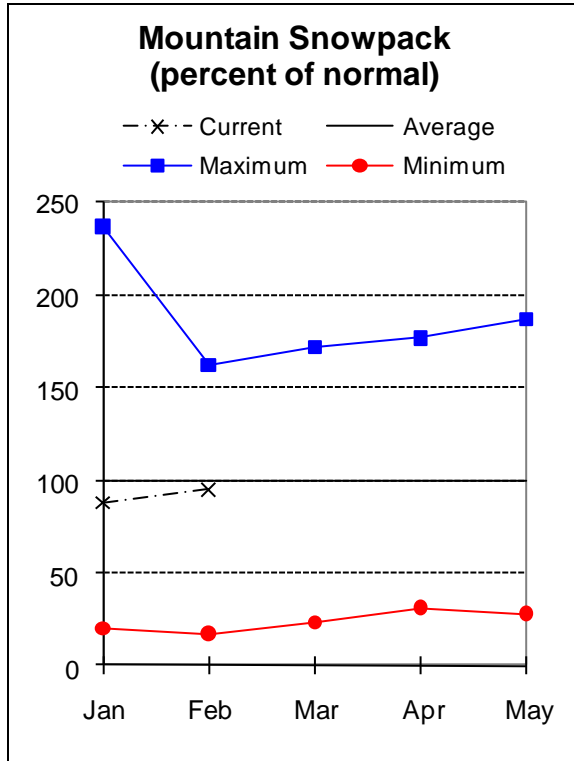
For more information contact your local Natural Resources Conservation Service Office:
The Dalles (541) 296-6178

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Lower Columbia Basin

February 1, 2011



Water Supply Outlook

On February 1, the snowpack in the Columbia Basin above The Dalles was 95 percent of average. The Canadian snowpack grew during January, significantly boosting the basin total.

Since the beginning of the water year, precipitation in the Columbia basin has been 109 percent of average. Locally, January precipitation in the Sandy basin was 106 percent of average.

At this point in the season, the April through September streamflow forecast for the Columbia at The Dalles is 99 percent of average. For the Sandy near Marmot, the April through September streamflow forecast is 94 percent of average.

For more information contact your local Natural Resources Conservation Service Office:
Oregon City - (503) 656-3499

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

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LOWER COLUMBIA BASIN
Streamflow Forecasts - February 1, 2011

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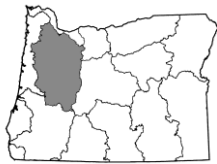
Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		Chance Of Exceeding *						
		90%	70%	50%		30%	10%	30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
Columbia R at The Dalles (2)	APR-JUL	69100	78000	84100	99	90200	99100	84600
	APR-SEP	80500	90900	98000	99	105000	115000	98600
Sandy R nr Marmot	APR-JUL	225	265	295	94	325	365	313
	APR-SEP	265	310	340	94	370	415	363

LOWER COLUMBIA BASIN Reservoir Storage (1000 AF) - End of January					LOWER COLUMBIA BASIN Watershed Snowpack Analysis - February 1, 2011			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Sandy	7	117	69

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

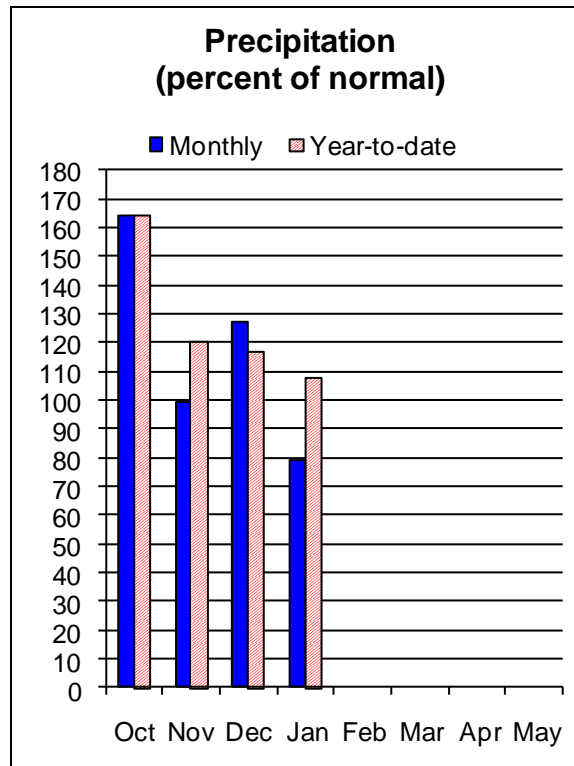
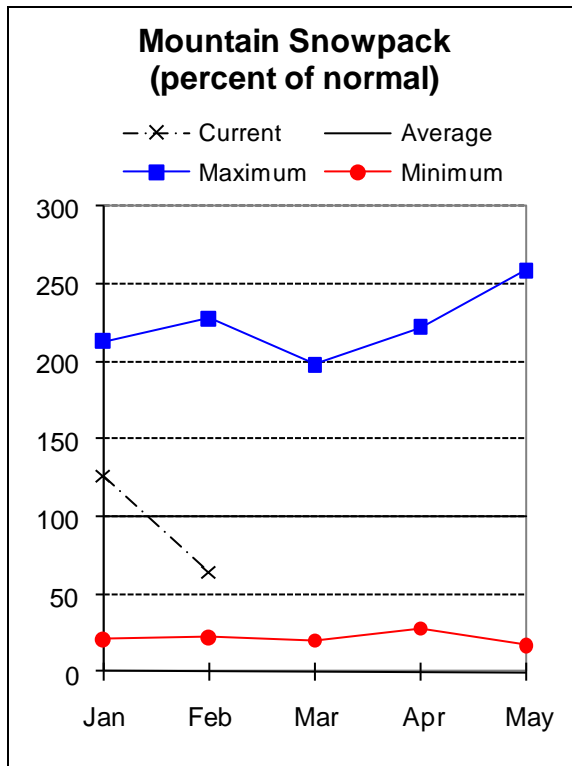
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

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Willamette Basin

February 1, 2011



Water Supply Outlook

The Willamette basin snowpack was greatly reduced by the mid-January rain-on-snow event. Most snow measurement sites in the basin lost snow water last month. All of the measurement sites in the Willamette basin suffered a net loss in snow depth during January. The greatest loss occurred at Holland Meadows SNOTEL, where snow depth decreased by 36 inches during January. The basin snowpack on February 1 was 64 percent of average, down from 126 percent of average on January 1. Snow measurements were collected at 20 SNOTEL sites and 2 snow courses for this report. As of February 1, total precipitation since the beginning of the water year was 108 percent of average in the Willamette basin. The February 1 storage at Timothy Lake and Henry Hagg reservoirs was 106 percent of average and 80 percent of capacity. Willamette basin flood control reservoirs detained much of the runoff from the January storm event.

The April through September streamflow forecasts for the Willamette basin range from 86 percent of average for the Clackamas River above Three Lynx to 103 percent of average for Fall Creek Lake inflow. At this point in the season, water users in the Willamette basin can expect near average to slightly below average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:
 Eugene - (541) 465-6436; Portland - (503) 231-2270; Tangent - (541) 967-5925; Oregon City - (503) 656-3499;
 Hillsboro - (503) 648-3174; McMinnville - (503) 472-1474
 Salem - (503) 399-5746; Dallas - (503) 623-5534
 Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

WILLAMETTE BASIN
Streamflow Forecasts - February 1, 2011

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90%	70%	50%		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
=====								
Blue Lake Inflow (1,2)	FEB-MAY	93	136	156	96	176	220	163
	APR-JUL	45	71	83	97	95	121	86
	APR-SEP	46	71	83	97	95	120	86
Clackamas R ab Three Lynx (2)	APR-JUL	315	370	410	87	450	505	474
	APR-SEP	385	445	485	86	525	585	562
Cottage Grove Lake Inflow (1,2)	FEB-MAY	45	73	86	99	99	127	87
	APR-JUL	10.5	31	40	99	49	70	41
	APR-SEP	13.3	34	43	100	52	73	43
Cougar Lake Inflow (1,2)	FEB-MAY	185	245	275	97	305	365	285
	APR-JUL	137	180	199	98	220	260	204
	APR-SEP	162	205	225	98	245	290	230
Detroit Lake Inflow (1,2)	FEB-MAY	480	620	680	91	740	880	744
	APR-JUL	300	425	480	91	535	660	528
	APR-SEP	370	500	560	91	620	750	616
Dorena Lake Inflow (1,2)	FEB-MAY	140	225	260	102	295	380	255
	APR-JUL	51	108	134	102	160	215	131
	APR-SEP	56	114	140	102	166	225	137
Fall Creek Lake Inflow (1,2)	FEB-MAY	118	175	200	102	225	280	197
	APR-JUL	49	90	109	103	128	169	106
	APR-SEP	54	96	115	103	134	176	112
Fern Ridge Lake Inflow (1,2)	FEB-MAY	62	134	167	93	200	270	180
	APR-JUL	6.2	34	46	94	58	86	49
	APR-SEP	5.3	33	46	92	59	87	50
Foster Lake Inflow (1,2)	FEB-MAY	665	750	790	90	830	915	878
	APR-JUL	355	415	440	90	465	525	490
	APR-SEP	390	450	475	90	500	560	527

For more information contact your local Natural Resources Conservation Service Office:

Eugene - (541) 465-6436; Portland - (503) 231-2270; Tangent - (541) 967-5925; Oregon City - (503) 656-3499; Hillsboro - (503) 648-3174; McMinnville - (503) 472-1474

Salem - (503) 399-5746; Dallas - (503) 623-5534

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

WILLAMETTE BASIN
Streamflow Forecasts - February 1, 2011

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions =====		===== Wetter =====>>		30-Yr Avg. (1000AF)	
		Chance Of Exceeding *							
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
Green Peter Lake Inflow (1,2)	FEB-MAY	355	485	545	90	605	735	604	
	APR-JUL	160	255	295	90	335	430	327	
	APR-SEP	184	280	320	90	360	455	354	
Hills Creek Reservoir Inflow (1,2)	FEB-MAY	230	335	380	98	425	530	388	
	APR-JUL	167	240	270	98	300	375	277	
	APR-SEP	200	275	310	97	345	420	320	
Little North Santiam R nr Mehama (1)	APR-JUL	66	104	121	91	138	176	133	
	APR-SEP	74	112	130	91	148	186	143	
Lookout Point Lake Inflow (1,2)	FEB-MAY	610	870	990	97	1110	1370	1025	
	APR-JUL	430	620	705	97	790	980	726	
	APR-SEP	495	705	800	97	895	1110	828	
MF Willamette R bl NF (1,2)	FEB-MAY	490	790	925	95	1060	1360	973	
	APR-JUL	330	555	660	95	765	990	698	
	APR-SEP	395	645	760	95	875	1130	798	
McKenzie R bl Trail Bridge (2)	FEB-MAY	220	255	275	94	295	330	294	
	APR-JUL	210	235	250	94	265	290	266	
	APR-SEP	330	360	380	94	400	430	404	
McKenzie R nr Vida (1,2)	FEB-MAY	970	1200	1310	101	1420	1650	1295	
	APR-JUL	750	910	985	101	1060	1220	977	
	APR-SEP	950	1130	1210	101	1290	1470	1201	
Mohawk R nr Springfield	FEB-JUL	124	167	196	100	225	270	196	
Oak Grove Fork Of Clackamas	APR-JUL	88	104	115	89	126	142	130	
	APR-SEP	115	135	148	89	161	181	167	

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WILLAMETTE BASIN
Streamflow Forecasts - February 1, 2011

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
North Santiam R at Mehama (1,2)	FEB-MAY	755	990	1100	96	1210	1450	1150
	APR-JUL	480	635	705	96	775	930	732
	APR-SEP	570	730	800	96	870	1030	834
South Santiam R at Waterloo (2)	APR-JUL	340	450	525	96	600	710	549
	APR-SEP	385	490	565	96	640	745	587
Scoggins Ck Bl Hagg Lk Nr Gaston	FEB-JUL	26	37	44	102	51	62	43
Willamette R at Salem (1,2)	APR-JUL	2750	3790	4260	98	4730	5770	4347
	APR-SEP	3160	4220	4700	98	5180	6240	4804

WILLAMETTE BASIN
Reservoir Storage (1000 AF) - End of January

WILLAMETTE BASIN
Watershed Snowpack Analysis - February 1, 2011

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BLUE RIVER	85.5	3.5	2.3	6.0	Clackamas	6	113	53
COTTAGE GROVE	29.8	3.9	4.0	3.6	McKenzie	8	154	66
COUGAR	155.2	16.6	5.6	77.6	Row River	1	276	46
DETROIT	300.7	27.4	33.4	69.0	Santiam	6	180	53
DORENA	70.5	11.0	8.6	11.8	Middle Fork Willamette	7	130	78
FALL CREEK	115.5	1.4	2.0	7.1				
FERN RIDGE	109.6	2.3	6.0	18.6				

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WILLAMETTE BASIN Reservoir Storage (1000 AF) - End of January					WILLAMETTE BASIN Watershed Snowpack Analysis - February 1, 2011			
Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg	Watershed	Number of Data Sites	This Year as % of Last Yr Average	
FOSTER	29.7	1.7	1.5	4.9				
GREEN PETER	268.2	9.1	30.3	91.2				
HILLS CREEK	200.2	28.8	9.4	71.3				
LOOKOUT POINT	337.0	68.5	17.8	41.8				
TIMOTHY LAKE	61.7	51.9	50.3	49.9				
HENRY HAGG LAKE	53.0	39.4	40.6	36.2				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

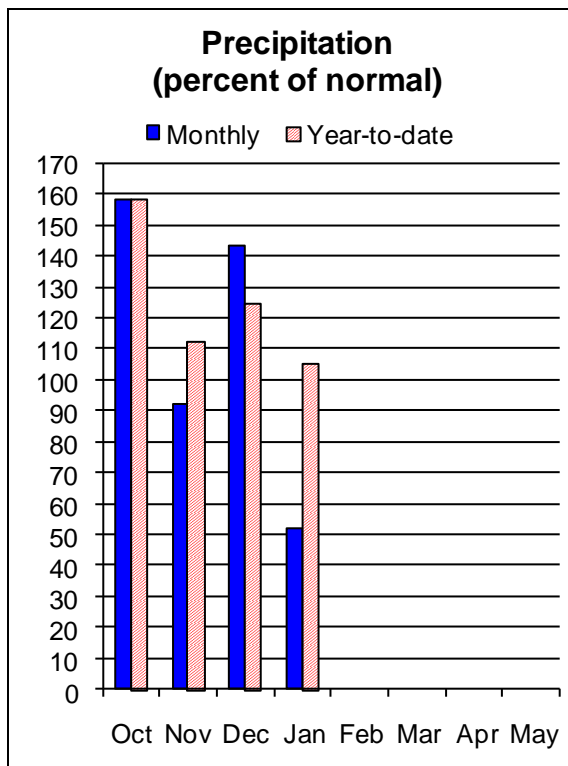
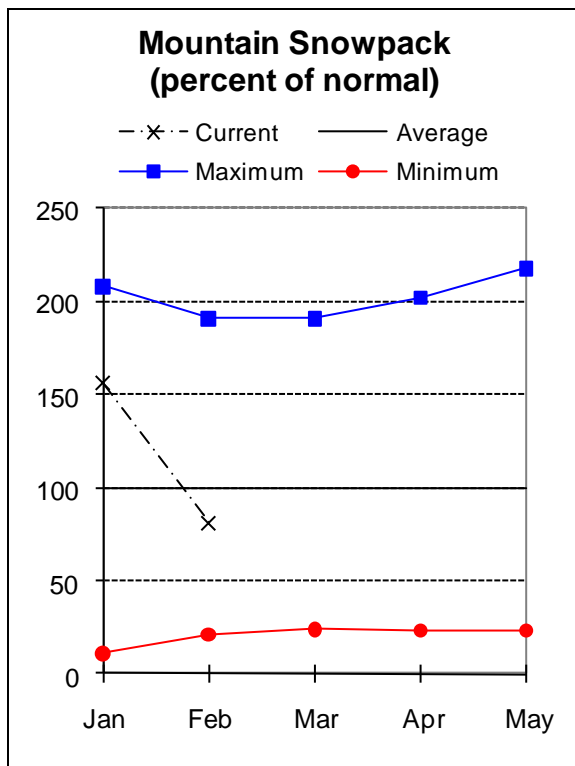
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Rogue and Umpqua Basins

February 1, 2011



Water Supply Outlook

The snowpack in the Rogue and Umpqua basin was greatly reduced by the warm temperatures during January. Only 3 out of 32 snow measurement sites in the basin gained snow water during the month. The snowpack on February 1 was 81 percent of average, a significant decline from the 156 percent of average measured on January 1. Snow measurements were collected at 12 SNOTEL sites and 20 snow courses for this report.

January precipitation in the Rogue and Umpqua basin was a mere 52 percent of average. Precipitation since the beginning of the water year has been 105 percent of average, the lowest in the state.

The February 1 storage at 5 irrigation reservoirs in the Rogue and Umpqua basin was 105 percent of average and 65 percent of capacity.

The April through September streamflow forecasts for the Rogue and Umpqua basin range from 90 percent of average for Applegate Lake Inflow to 102 percent of average for the South Umpqua at Tiller. At this point in the season, water users throughout the Rogue and Umpqua basin can expect near average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:

Roseburg - (541) 673-8316; Medford - (541) 776-4267

Or visit: <http://www.wcc.nrcs.usda.gov/cgi-bin/bor.pl>

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ROGUE AND UMPQUA BASINS
Streamflow Forecasts - February 1, 2011

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		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====								
Applegate Lake Inflow (2)	FEB-JUL	81	142	184	90	225	285	205
	APR-JUL	51	81	101	90	121	151	112
	FEB-SEP	90	152	194	90	235	300	215
	APR-SEP	55	86	107	90	128	159	119
SF Big Butte Ck nr Butte Falls	APR-JUL	22	29	34	100	39	46	34
	APR-SEP	28	37	43	99	49	58	44
Cow Ck nr Azalea (2)	FEB-JUL	12.5	29	40	95	51	67	42
	APR-JUL	4.8	11.4	15.9	96	20	27	16.5
	APR-SEP	5.4	12.3	17.0	96	22	29	17.7
Hyatt Prairie Reservoir Inflow (2)	APR-JUL	1.1	2.9	4.1	85	5.3	7.1	4.8
Illinois R at Kerby	APR-JUL	74	138	182	102	225	290	179
	APR-SEP	78	143	187	101	230	295	186
NF Little Butte Ck nr Lakecreek (2)	APR-JUL	22	28	32	101	36	42	32
	APR-SEP	34	42	47	102	52	60	46
Lost Creek Lake Inflow (2)	FEB-JUL	620	730	805	98	880	990	825
	APR-JUL	395	470	520	98	570	645	530
	FEB-SEP	735	855	940	98	1020	1150	960
	APR-SEP	505	590	650	98	710	795	665
Rogue R at Raygold (2)	APR-JUL	485	630	730	100	830	975	730
	APR-SEP	630	785	890	100	995	1150	890
Rogue R at Grants Pass (2)	APR-JUL	465	630	740	100	850	1020	740
	APR-SEP	585	765	885	100	1010	1190	885
Sucker Ck bl Ltl Grayback Ck nr Holl	APR-JUL	33	45	53	102	61	73	52
	APR-SEP	37	49	57	102	65	77	56
North Umpqua R at Winchester	APR-JUL	545	695	795	100	895	1050	795
	APR-SEP	655	815	920	100	1030	1180	920

For more information contact your local Natural Resources Conservation Service Office:
Roseburg - (541) 673-8316; Medford - (541) 776-4267
Or visit: <http://www.wcc.nrcs.usda.gov/cgi-bin/bor.pl>

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ROGUE AND UMPQUA BASINS
Streamflow Forecasts - February 1, 2011

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		<<===== Drier ===== Future Conditions ===== Wetter =====>>								
Forecast Point	Forecast Period	Chance Of Exceeding *								
		90% (1000AF)		70% (1000AF)		50% (1000AF) (% AVG.)		30% (1000AF) 10% (1000AF)		30-Yr Avg. (1000AF)
South Umpqua R nr Brockway		APR-JUL	205	325	410	103	495	615	400	
		APR-SEP	225	350	435	104	520	645	420	
South Umpqua R at Tiller		APR-JUL	113	164	199	103	235	285	193	
		APR-SEP	123	175	210	102	245	295	205	

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ROGUE AND UMPQUA BASINS
Reservoir Storage (1000 AF) - End of January

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ROGUE AND UMPQUA BASINS
Watershed Snowpack Analysis - February 1, 2011

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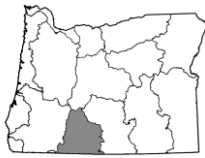
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
APPLEGATE	75.2	5.2	3.5	12.7	Applegate	6	99	83
EMIGRANT LAKE	39.0	24.7	18.2	21.9	Bear Creek	5	92	80
FISH LAKE	8.0	4.0	5.1	5.3	Little Butte Creek	6	129	78
FOURMILE LAKE	16.1	7.8	8.3	9.0	Illinois	5	186	93
HOWARD PRAIRIE	60.0	40.2	40.4	39.1	North Umpqua	9	159	67
HYATT PRAIRIE	16.1	13.5	12.5	10.2	Rogue River above Grants	21	117	83
LOST CREEK	315.0	29.5	28.2	162.0				

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* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

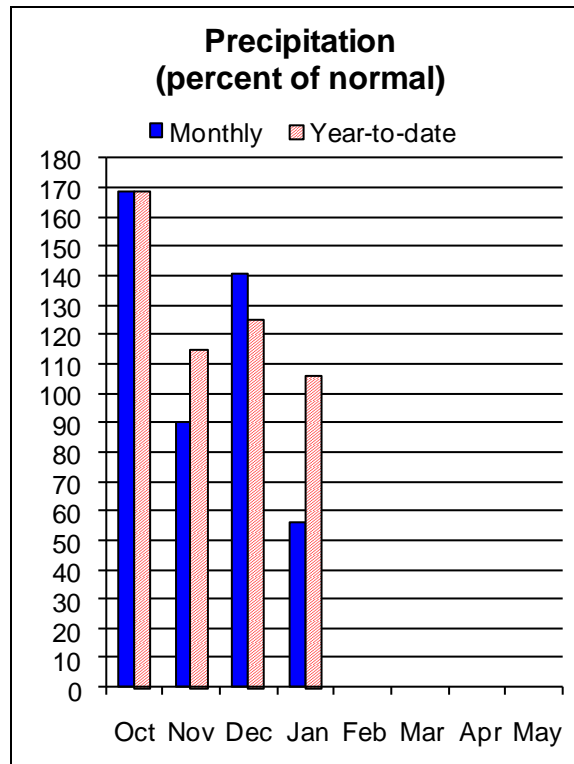
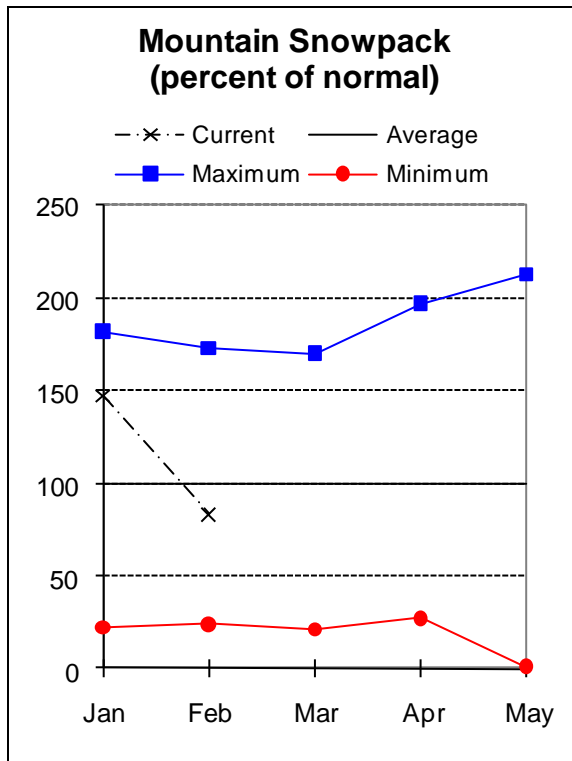
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

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 Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>



Klamath Basin

February 1, 2011



Water Supply Outlook

Of the 27 snow measurement sites surveyed for the February 1 report, 13 recorded a loss of snow water since the January 1 survey. All measurement sites in the Klamath lost snow depth during January. The snowpack in the Klamath basin measured 83 percent of average on February 1. This is a significant decrease from the January 1 snowpack, which was 147 percent of average. Snow measurements were collected at 15 SNOTEL sites 5 snow courses and 7 aerial markers for this report. Precipitation for the month of January was a scant 56 percent of average. Since the beginning of the water year, Klamath basin precipitation has been 106 percent of average.

The February 1 storage at Upper Klamath Lake, Clear Lake (CA) and Gerber reservoirs was 82 percent of average and 44 percent of capacity.

The change in snowpack conditions has resulted in lower streamflow forecasts from the January report. The April through September streamflow forecasts for the Klamath basin range from 100 percent of average for Upper Klamath Lake inflow to 106 percent of average for both Clear Lake and Gerber Reservoir inflow. At this point in the season, Klamath basin water users can expect near average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:
Klamath Falls - (541) 883-6932

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

KLAMATH BASIN
Streamflow Forecasts - February 1, 2011

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)	
		Chance Of Exceeding *							
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
Clear Lake Inflow (2)	FEB-JUL	47	85	110	105	135	173	105	
	APR-SEP	27	41	51	106	61	75	48	
Gerber Reservoir Inflow (2)	FEB-JUL	22	39	50	106	61	78	47	
	APR-SEP	3.4	12.6	18.9	106	25	34	17.8	
Sprague R nr Chiloquin	FEB-JUL	215	290	340	105	390	465	325	
	FEB-SEP	235	310	365	104	420	495	350	
	APR-SEP	155	205	240	104	275	325	230	
Upper Klamath Lake Inflow (1,2)	FEB-JUL	495	690	780	100	870	1070	780	
	FEB-SEP	565	780	875	100	970	1190	875	
	APR-SEP	340	460	515	100	570	690	515	
Williamson R bl Sprague R nr Chiloqu	FEB-JUL	370	465	525	101	585	680	518	
	FEB-SEP	425	520	585	101	650	745	580	
	APR-SEP	285	350	390	101	430	495	385	

KLAMATH BASIN Reservoir Storage (1000 AF) - End of January					KLAMATH BASIN Watershed Snowpack Analysis - February 1, 2011			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CLEAR LAKE (CALIF)	513.3	73.1	61.2	207.8	Lost	3	100	65
GERBER	94.3	27.4	24.7	46.9	Sprague	8	94	80
UPPER KLAMATH LAKE	523.7	400.9	204.2	354.6	Upper Klamath Lake	7	119	87
					Williamson River	5	112	91

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service Office:

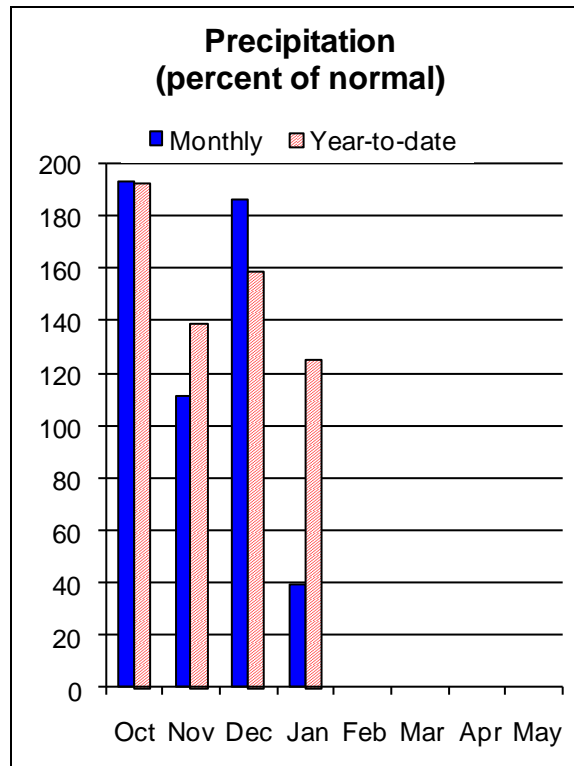
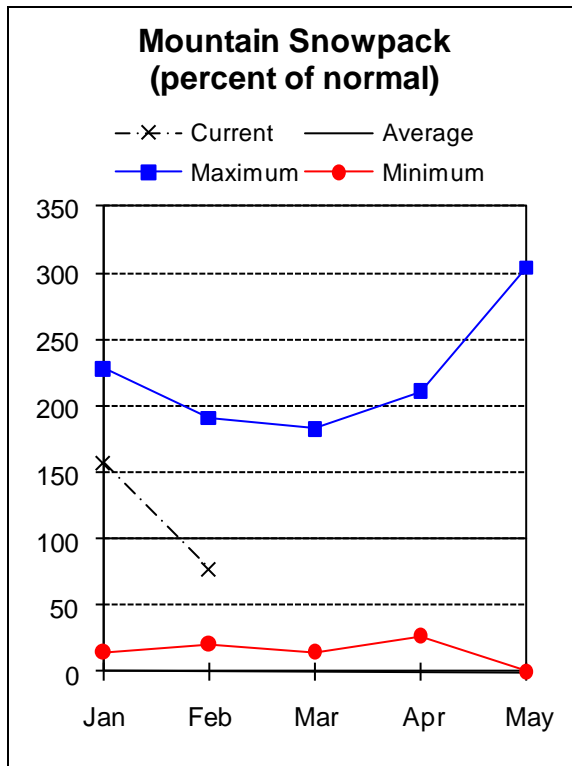
Klamath Falls - (541) 883-6932

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>



Lake County and Goose Lake

February 1, 2011



Water Supply Outlook

Many of the lower elevation snow measurement sites in the Lake County and Goose Lake basins lost snow water this month, while those above 7,000 feet had a net gain in snow water. The aerial marker flight observed extreme variability in snow cover across the basin. The February 1 snowpack in Lake County and Goose Lake basin measured 77 percent of average. This is a significant decline from 157 percent of average measured on January 1. Snow measurements were collected at 9 SNOTEL sites, 1 snow course and 13 aerial markers this month.

January was the first month this water year to record below average precipitation in the basin. January precipitation in the Lake County and Goose Lake basin was only 39 percent of average, the lowest in the state. Total precipitation since the beginning of the water year has been 125 percent of average, buoyed by a wet October, November and December. February 1 storage at Cottonwood and Drews reservoirs was 71 percent of average and 36 percent of capacity. There has been a noteworthy decline in the Lake County and Goose Lake basin streamflow forecasts since the January report. The April through September streamflow forecasts for the Lake County and Goose Lake basin range from 106 percent of average for Silver Creek near Silver Lake to 126 percent of average for Twentymile Creek near Adel. At this point in the season, water users in the Lake County and Goose Lake basin can expect average to above average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:
Lakeview - (541) 947-2202

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

LAKE COUNTY AND GOOSE LAKE BASINS
Streamflow Forecasts - February 1, 2011

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)	
		Chance Of Exceeding *							
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
=====									
Chewaucan R nr Paisley	MAR-JUL	69	87	99	111	111	129	89	
	APR-SEP	61	76	87	112	98	113	78	
Deep Ck ab Adel	MAR-JUL	67	86	99	118	112	131	84	
	APR-SEP	54	70	81	117	92	108	69	
Honey Ck nr Plush	MAR-JUL	12.0	19.1	24	120	29	36	20	
	APR-SEP	9.7	15.8	20	121	24	30	16.6	
Silver Ck nr Silver Lake (2)	MAR-JUL	7.2	12.1	15.5	106	18.9	24	14.6	
	APR-SEP	3.0	8.3	11.9	106	15.5	21	11.2	
Twentymile Ck nr Adel	MAR-JUL	12.2	26	35	125	44	58	28	
	APR-SEP	5.3	15.2	22	126	29	39	17.4	

LAKE COUNTY AND GOOSE LAKE BASINS
Reservoir Storage (1000 AF) - End of January

LAKE COUNTY AND GOOSE LAKE BASINS
Watershed Snowpack Analysis - February 1, 2011

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
COTTONWOOD	8.7	5.0	3.6	3.1	Chewaucan River	6	91	73
DREWS	63.0	20.7	1.9	33.1	Deep Creek	2	116	89
					Drew Creek	4	77	62
					Honey Creek	2	56	49
					Silver Creek (Lake Co.)	5	94	90
					Twentymile Creek	4	108	112

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

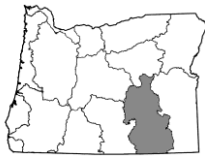
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(2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service Office:

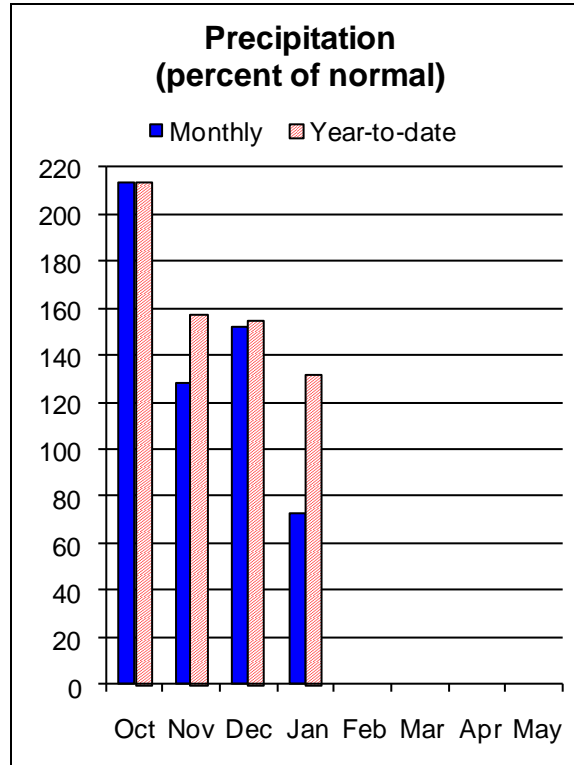
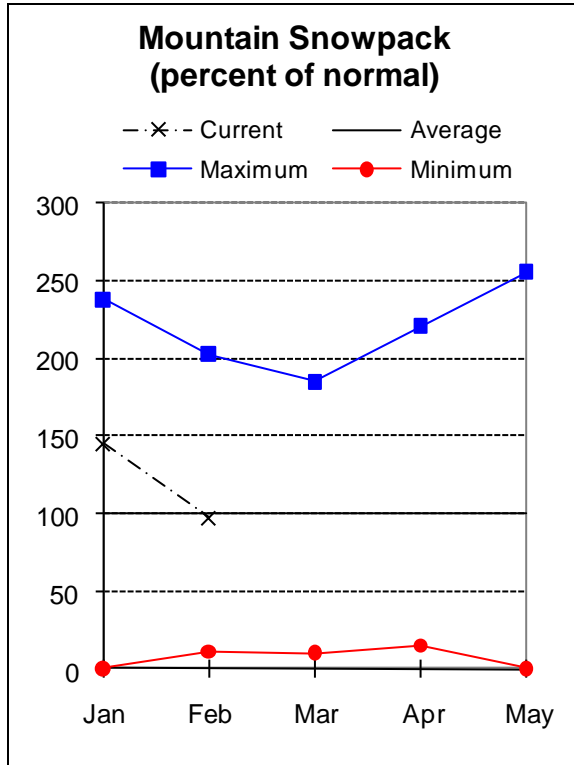
Lakeview - (541) 947-2202

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>



Harney Basin

February 1, 2011



Water Supply Outlook

January was the first month this water year to record below average precipitation in the Harney basin. January precipitation was 73 percent of average. Since the beginning of the water year, precipitation in the Harney basin has been 132 percent of average.

A majority of the SNOTEL sites in the Harney basin recorded gains in snow water from the January 1 reading. All sites in the Harney basin had net losses in total snow depth. The greatest snow depth losses occurred at sites below 5800 feet. The snowpack as measured at 17 SNOTEL sites and 8 aerial markers was 97 percent of average on February 1. This is a significant decline from 145 percent of average measured on January 1.

There has been a significant decline in the Harney basin streamflow forecasts since the January report. The April through September streamflow forecasts for the Harney basin range from 114 percent of average for the Donner Und Blitzen River near Frenchglen to 120 percent of average for Trout Creek near Denio. Elsewhere in the basin, the Silvies River near Burns is forecast to be 119 percent of average for the April through September period. At this point in the season, water users in the Harney basin can anticipate above average streamflows in the summer ahead.

For more information contact your local Natural Resources Conservation Service Office:

Hines - (541) 573-6446

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

HARNEY BASIN
Streamflow Forecasts - February 1, 2011

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90%	70%	50%		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Donner Und Blitzen R nr Frenchglen	MAR-JUL	55	74	86	115	98	117	75
	APR-SEP	49	68	80	114	92	111	70
Silvies R nr Burns	MAR-JUL	79	124	154	119	184	230	129
	APR-SEP	63	96	118	119	140	173	99
Trout Ck nr Denio	MAR-JUL	8.1	11.3	13.5	122	15.7	18.9	11.1
	APR-SEP	6.9	10.2	12.4	120	14.6	17.9	10.3

HARNEY BASIN Reservoir Storage (1000 AF) - End of January					HARNEY BASIN Watershed Snowpack Analysis - February 1, 2011			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Donner und Blitzen River	5	106	106
					Silver Creek (Harney Co.)	2	143	111
					Silvies River	6	110	97
					Trout Creek	6	128	118

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

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Recession Flow Forecasts

Recession flow forecasts are presented below for key streamflow sites where reliable, daily streamflow data are available. The recession flow forecasts use exceedance probabilities in a format similar to the standard water supply forecasts presented in this document. Each forecast provides a range of possible outcomes representing the uncertainty of forecasting models.

The types of forecasts in the table below are:

- 1) Threshold flow -- Date that the daily streamflow rate falls below the given threshold flow
- 2) Peak flow -- Maximum daily flow
- 3) Date of peak flow -- Date of occurrence of maximum daily flow
- 4) Average daily flow on a given date

OWYHEE AND MALHEUR BASINS					
FORECAST POINT	FORECAST THRESHOLD	FORECAST VALUE ----- CHANCE OF EXCEEDING ----- -----			LONG-TERM AVERAGE VALUE
		90%	50%	10%	
Owyhee R nr Rome	2000 cfs	Apr 01	May 12	Jun 22	May 6
Owyhee R nr Rome	1000 cfs	Apr 13	May 26	Jul 08	May 18
Owyhee R nr Rome	500 cfs	May 03	Jun 13	Jul 24	Jun 2

UPPER JOHN DAY BASIN					
FORECAST POINT	FORECAST THRESHOLD	FORECAST VALUE ----- CHANCE OF EXCEEDING ----- -----			LONG-TERM AVERAGE VALUE
		90%	50%	10%	
John Day R at Service Creek	Average Daily Flow on Aug. 1st	115	340	565	271

UPPER DESCHUTES AND CROOKED BASINS					
FORECAST POINT	FORECAST THRESHOLD	FORECAST VALUE ----- CHANCE OF EXCEEDING ----- -----			LONG-TERM AVERAGE VALUE
		90%	50%	10%	
Crane Prairie Inflow*	Date of Peak	May 9*	May 25*	Jun 10*	May 25
Crane Prairie Inflow	Peak Flow	228	380	532	403
Crane Prairie Inflow	Average Daily Flow on Oct. 1st	162	235	308	269
Prineville Reservoir Inflow	113 cfs	May 09	Jun 03	Jun 28	June 3
Prineville Reservoir Inflow	75 cfs	May 16	Jun 10	Jul 05	June 11
Prineville Reservoir Inflow	50 cfs	May 23	Jun 18	Jul 14	June 19
Whychus Creek nr Sisters	100 cfs	Jul 21	Aug 17	Sep 13	August 16

*No prediction possible until April 1. Historic values are shown for reference

ROGUE AND UMPQUA BASINS					
FORECAST POINT	FORECAST THRESHOLD	FORECAST VALUE ----- CHANCE OF EXCEEDING ----- -----			LONG-TERM AVERAGE VALUE
		90%	50%	10%	
South Umpqua R nr Brockway *	90 cfs	Jul 21	Aug 08	Aug 26	August 8
South Umpqua R at Tiller	140 cfs	Jun 20	Jul 12	Aug 03	July 11
South Umpqua R at Tiller	90 cfs	Jul 10	Aug 02	Aug 25	August 1
South Umpqua R at Tiller	60 cfs	Jul 31	Aug 30	Sep 29	August 28

*Dates are based on streamflow data adjusted for releases from Galesville Reservoir to reflect natural flow conditions and do not match observed gage data. There is approximately 20% chance in any given year that the flow will not recede below 90 cfs; the dates given here are in the event that the flow does recede below 90 cfs.

LAKE COUNTY AND GOOSE LAKE BASINS					
FORECAST POINT	FORECAST THRESHOLD	FORECAST VALUE ----- CHANCE OF EXCEEDING ----- -----			LONG-TERM AVERAGE VALUE
		90%	50%	10%	
Deep Ck ab Adel	100 cfs	May 29	Jun 18	Jul 08	June 17
Honey Ck nr Plush	100 cfs	Apr 06	May 11	Jun 15	May 16
Honey Ck nr Plush	50 cfs	Apr 25	May 27	Jun 28	June 4
Twentymile Ck nr Adel	50 cfs	May 02	Jun 01	Jul 01	May 30
Twentymile Ck nr Adel	10 cfs	Jun 18	Jul 11	Aug 03	July 20

HARNEY BASIN					
FORECAST POINT	FORECAST THRESHOLD	FORECAST VALUE ----- CHANCE OF EXCEEDING ----- -----			LONG-TERM AVERAGE VALUE
		90%	50%	10%	
Silvies R nr Burns	400 cfs	Apr 26	May 23	Jun 19	May 21
	200 cfs	May 12	Jun 09	Jul 07	June 2
	100 cfs	May 29	Jun 27	Jul 26	June 13
	50 cfs	Jun 15	Jul 20	Aug 24	July 3
Donner Und Blitzen R nr Frenchglen	200 cfs	May 25	Jun 16	Jul 08	June 20
Donner Und Blitzen R nr Frenchglen	100 cfs	Jun 16	Jul 06	Jul 26	July 9

Summary of Snow Course Data

February 2011

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
Oregon						
ALTHOUSE #2	4530	1/28/11	4	2.5	2.3	3.6
ALTHOUSE #3	5000	1/28/11	24	9.6	5.0	8.8
ANEROID LAKE SNOTEL	7400	2/01/11	34	9.0	10.9	16.2
ANNIE SPRING SNOTEL	6010	2/01/11	64	26.6	21.8	26.0
ANTHONY LAKE (REV)	7130	2/02/11	45	14.2	11.3	--
ARBUCKLE MTN SNOTEL	5770	2/01/11	34	11.5	11.1	13.9
BALD MTN,OR AM	6720	1/31/11	75	26.2	17.9	16.7
BARNEY CREEK (NEW)	5840	2/01/11	20	6.2	6.1	--
BEAR FLAT MEADOW AM	5900	1/27/11	8	3.2	6.8	7.3
BEAVER DAM CREEK	5100	2/01/11	18	8.2	6.0	9.8
BEAVER RES. SNOTEL	5150	2/01/11	19	6.6	5.9	7.1
BIG RED MTN SNOTEL	6050	2/01/11	39	14.1	14.4	16.7
BIG SHEEP AM	6200	1/31/11	51	16.8	17.2	18.8
BIGELOW CAMP SNOTEL	5130	2/01/11	19	8.7	3.6	9.4
BILLIE CK DVD SNOTEL	5280	2/01/11	35	13.4	10.9	16.9
BLAZED ALDER SNOTEL	3650	2/01/11	34	12.6	9.7	21.4
BLUE MTN SPGS SNOTEL	5870	2/01/11	35	11.4	10.0	12.3
BOURNE SNOTEL	5850	2/01/11	30	9.9	10.0	12.8
BOWMAN SPRNGS SNOTEL	4530	2/01/11	19	5.5	4.8	7.3
BUCK PASTURE AM	5700	1/28/11	4	1.6	3.5	2.1
BUCKSKIN LAKE AM	5200	1/28/11	0	.0	1.0	.7
CALIBAN ALT	6500	1/28/11	33	16.2	17.0	19.1
CALL MEADOWS AM	5340	1/28/11	5	2.0	4.8	3.6
CAMAS CREEK #3	5850	1/28/11	24	8.7	7.6	9.7
CASCADE SUM. SNOTEL	5100	2/01/11	56	13.9	16.5	21.3
CHEMULT ALT SNOTEL	4850	2/01/11	22	7.9	5.8	7.3
CLACKAMAS LK. SNOTEL	3400	2/01/11	14	5.0	5.4	10.2
CLEAR LAKE SNOTEL	3810	2/01/11	14	4.9	3.0	10.4
COLD SPRINGS SNOTEL	5940	2/01/11	41	19.6	14.2	21.3
COUNTY LINE SNOTEL	4830	2/01/11	1	1.1	3.1	4.2
COX FLAT AM	5750	1/27/11	2	.8	2.7	5.3
CRAZYMAN FLAT AM	6100	1/27/11	15	5.4	5.8	6.3
CRAZYMAN FLAT SNOTEL	6180	2/01/11	30	10.8	9.1	11.9
DALY LAKE SNOTEL	3690	2/01/11	7	3.4	.2	12.6
DEADHORSE GRADE	3700	2/01/11	5	2.0	.2	7.4
DEADWOOD JUNCTION	4600	2/01/11	13	5.5	4.4	6.3
DERR	5670	1/31/11	22	7.3	8.4	7.6
DERR SNOTEL	5850	2/01/11	32	9.8	9.4	10.3
DIAMOND LAKE SNOTEL	5280	2/01/11	16	9.3	7.4	12.9
DOG HOLLOW AM	4900	1/27/11	0	.0	.9	1.0
DOOLEY MOUNTAIN	5430	2/01/11	26	8.0	8.6	6.1
EAST EAGLE	4400	1/30/11	46	13.7	14.9	16.2
EILERTSON SNOTEL	5510	2/01/11	18	7.0	8.2	7.7
ELDORADO PASS	4600	2/01/11	15	4.7	5.0	3.2
EMIGRANT SPGS SNOTEL	3800	2/01/11	15	5.8	3.5	5.9
FINLEY CORRALS AM	6000	1/27/11	29	10.4	9.8	11.1
FISH CREEK SNOTEL	7660	2/01/11	60	24.0	16.4	17.6
FISH LK. SNOTEL	4660	2/01/11	21	6.9	4.5	9.3
FOURMILE LAKE SNOTEL	5970	2/01/11	41	16.5	13.8	21.3
GERBER RES SNOTEL	4890	2/01/11	2	.6	1.2	1.6
GOLD CENTER SNOTEL	5410	2/01/11	22	7.1	6.9	8.1
GOVT CORRALS AM	7450	1/28/11	29	9.6	7.2	--
GRAYBACK PEAK	6000	1/31/11	32	12.7	--	13.3
GREENPOINT SNOTEL	3310	2/01/11	14	5.2	8.1	14.4
HART MOUNTAIN AM	6350	1/27/11	0	.0	1.8	1.6
HIGH PRAIRIE	6100	1/31/11	55	21.1	25.1	30.9
HIGH RIDGE SNOTEL	4920	2/01/11	41	18.3	13.6	16.9
HOGG PASS SNOTEL	4790	2/01/11	36	12.0	12.9	26.8

SNOW COURSE		ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
Oregon (continued)							
HOLLAND MDWS	SNOTEL	4930	2/01/11	18	8.0	2.9	17.4
HOWARD PRAIRIE		4500	2/01/11	10	4.1	2.8	6.1
HUNGRY FLAT		4400	2/01/11	0	.0	1.0	4.2
IRISH-TAYLOR	SNOTEL	5540	2/01/11	57	19.7	17.7	23.8
JUMP OFF JOE	SNOTEL	3520	2/01/11	17	6.9	.0	8.9
KING MTN #1		4500	2/02/11	10	3.7	2.8	5.4
KING MTN #2	SNOTEL	4340	2/01/11	3	1.3	1.7	3.1
KING MTN #3		3650	2/02/11	0	.0	.0	.8
KING MTN #4		3050	2/02/11	0	.0	.0	.2
LAKE CK R.S.	SNOTEL	5240	2/01/11	27	8.6	6.7	9.5
LITTLE ALPS		6200	2/02/11	25	7.0	5.1	8.5
LITTLE ANTONE (ALT)		5000	2/02/11	21	6.5	6.1	6.5
LITTLE MEADOW	SNOTEL	4020	2/01/11	30	14.9	8.8	18.2
LOOKOUT BUTTE	AM	5650	1/28/11	0	.0	1.0	.4
LOUSE CANYON	AM	6440	1/28/11	15	5.0	3.2	4.9
LUCKY STRIKE	SNOTEL	4970	2/01/11	16	6.4	5.4	7.6
MADISON BUTTE	SNOTEL	5150	2/01/11	10	3.0	3.9	4.5
MARION FORKS	SNOTEL	2590	2/01/11	5	.4	1.4	8.1
MARKS CREEK		4540	1/28/11	7	2.5	3.0	3.2
MARY'S PEAK REV		3620	1/31/11	0	.0	.0	4.5
MCKENZIE	SNOTEL	4770	2/01/11	55	24.9	17.2	29.4
MEACHAM		4300	2/01/11	18	7.0	7.4	7.6
MILL CREEK MDW		4400	1/31/11	19	6.3	--	9.1
MILLER WOODS	SNOTEL	420	2/01/11	0	.0	.0	--
MIRROR LAKE	AM	8200	1/31/11	119	39.3	31.0	46.8
MOSS SPRINGS	SNOTEL	5760	2/01/11	44	15.3	15.1	17.5
MT ASHLAND SWBK		6400	1/28/11	37	14.8	18.0	20.6
MT HOOD		5370	1/27/11	74	33.5	29.0	43.0
MT HOOD TEST	SNOTEL	5370	2/01/11	74	29.0	26.9	38.6
MT HOWARD	SNOTEL	7910	2/01/11	25	8.3	10.6	10.3
MUD RIDGE	SNOTEL	4070	2/01/11	32	12.2	11.3	16.9
NEW CRESCENT	SNOTEL	4910	2/01/11	28	9.0	8.3	9.2
NEW DUTCHMAN #3		6320	2/01/11	76	31.2	23.6	35.7
NORTH FK RES	SNOTEL	3060	2/01/11	22	8.9	4.2	11.6
OCHOCO MEADOWS		5200	1/28/11	22	7.4	9.0	7.6
OCHOCO MEADOW	SNOTEL	5430	2/01/11	21	7.4	10.8	7.3
OREGON CANYON	AM	6950	1/28/11	18	5.9	3.8	4.5
PAGE MTN		4050	1/28/11	0	.0	.3	1.1
PARK H.Q. REV		6550	2/01/11	69	31.2	29.7	37.5
PATTON MEADOWS	AM	6800	1/27/11	27	9.7	10.5	10.9
PEAVINE RIDGE	SNOTEL	3420	2/01/11	13	6.6	4.6	9.5
PUEBLO SUMMIT	AM	6800	1/28/11	4	1.6	2.9	1.9
QUARTZ MTN	SNOTEL	5720	2/01/11	0	.0	1.6	2.6
R.R. OVERPASS	SNOTEL	2680	2/01/11	0	.0	.0	.5
RED BUTTE #1		4560	2/01/11	10	4.0	1.8	8.3
RED BUTTE #2		4000	2/01/11	0	.0	.0	4.4
RED BUTTE #3		3500	2/01/11	0	.0	.0	2.0
RED BUTTE #4		3000	2/01/11	0	.0	.0	1.0
RED HILL	SNOTEL	4410	2/01/11	45	23.8	22.9	30.2
ROARING RIVER	SNOTEL	4950	2/01/11	36	15.9	10.2	19.3
ROCK SPRINGS	SNOTEL	5290	2/01/11	16	4.7	5.8	4.1
ROGGER MEADOWS	AM	6500	1/27/11	21	7.6	6.5	8.6
SADDLE MTN	SNOTEL	3110	2/01/11	0	.0	.0	5.4
SALT CK FALLS	SNOTEL	4220	2/01/11	32	13.9	5.6	13.1
SANTIAM JCT.	SNOTEL	3740	2/01/11	24	9.3	2.8	14.6
SCHNEIDER MDW	SNOTEL	5400	2/01/11	56	18.5	17.7	22.3
SEINE CREEK	SNOTEL	2060	2/01/11	0	.0	.0	2.7
SEVENMILE MARSH SNTL		5700	2/01/11	45	18.3	13.6	20.1
SHERMAN VALLEY	AM	6600	1/27/11	0	.0	8.0	7.9
SILVER BURN		3720	2/01/11	26	10.1	3.3	8.4
SILVER CREEK	SNOTEL	5740	2/01/11	25	8.8	9.4	7.8
SILVIES	SNOTEL	6990	2/01/11	33	4.7	9.2	11.1
SISKIYOU SUMMIT REV		4630	1/28/11	10	4.0	3.7	4.6
SKI BOWL ROAD		6000	1/28/11	33	12.3	13.5	16.1
SNOW MTN	SNOTEL	6220	2/01/11	25	8.2	4.8	7.8

SNOW COURSE		ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
Oregon (continued)							
SF BULL RUN	SNOTEL	2690	2/01/11	0	.0	.0	2.6
STANDLEY	AM	7400	1/31/11	59	19.5	--	20.3
STARR RIDGE	SNOTEL	5250	2/01/11	19	6.2	5.3	5.2
STRAWBERRY	SNOTEL	5770	2/01/11	10	4.0	4.1	4.5
SUMMER RIM	SNOTEL	7080	2/01/11	32	11.2	10.0	11.4
SUMMIT LAKE	SNOTEL	5610	2/01/11	56	22.1	19.1	24.4
SUN PASS	SNOTEL	5400	2/01/11	38	12.8	13.7	--
SWAN LAKE MTN	SNOTEL	6830	2/01/11	37	15.0	13.4	--
SYCAN FLAT	AM	5500	1/27/11	0	.0	5.0	4.5
TANGENT		5400	2/01/11	32	12.6	13.4	15.2
TAYLOR BUTTE	SNOTEL	5030	2/01/11	17	5.9	5.6	5.4
TAYLOR GREEN	SNOTEL	5740	2/01/11	37	13.1	13.3	14.5
THREE CK MEAD	SNOTEL	5690	2/01/11	33	12.6	10.8	12.1
TIPTON	SNOTEL	5150	2/01/11	27	9.8	7.6	10.3
TOKETEE AIRSTRIp SN		3240	2/01/11	0	.5	.0	5.5
TOLLGATE		5070	2/01/11	49	18.2	18.8	19.5
TROUT CREEK	AM	7800	1/28/11	23	7.6	7.8	7.0
TV RIDGE #2	AM	7000	1/31/11	21	6.9	4.2	11.2
V LAKE	AM	6600	1/28/11	28	9.2	7.2	5.6
WEST EAGLE MEADOWS		5500	1/31/11	64	22.4	20.0	23.2
WOLF CREEK	SNOTEL	5630	2/01/11	32	9.9	9.4	11.2
California							
ADIN MOUNTAIN		6350	1/28/11	22	8.2	--	8.5
ADIN MTN SNOTEL		6190	2/01/11	28	9.2	--	9.0
BLUE LAKE RANCH		6800	2/01/11	15	4.8	--	--
CEDAR PASS		7100	2/02/11	31	10.9	--	10.9
CEDAR PASS SNOTEL		7030	2/01/11	36	12.4	--	11.4
CROWDER FLAT	AM	5200	1/27/11	0	.0	--	2.6
CROWDER FLAT SNOTEL		5170	2/01/11	7	3.5	--	3.7
DISMAL SWAMP SNOTEL		7360	2/01/11	57	21.5	--	18.0
STATE LINE	AM	5750	1/27/11	0	.0	--	4.8
Idaho							
BATTLE CREEK	AM	5720	1/28/11	13	4.0	3.0	3.4
BULL BASIN	AM	5460	1/28/11	5	2.0	2.5	2.1
MUD FLAT	SNOTEL	5730	2/01/11	26	6.8	6.4	5.2
RED CANYON	AM	6650	1/28/11	27	8.4	7.0	6.0
SOUTH MTN	SNOTEL	6500	2/01/11	33	11.6	10.7	12.8
SUCCOR CREEK	AM	6100	1/28/11	24	7.4	8.1	5.7
VAUGHT RANCH	AM	5830	1/28/11	15	4.7	3.5	4.1
Nevada							
BALD MOUNTAIN	AM	6720	1/27/11	0	.0	5.9	2.7
BEAR CREEK SNOTEL		7800	2/01/11	48	15.1	6.5	12.5
BIG BEND SNOTEL		6700	2/01/11	23	7.3	5.6	6.7
BUCKSKIN, L SNOTEL		6700	2/01/11	25	8.3	6.5	6.4
COLUMBIA BASIN	AM	6650	1/27/11	18	5.6	6.1	7.3
DISASTER PEAK SNOTEL		6500	2/01/11	19	5.5	4.1	9.1
FAWN CREEK SNOTEL		7050	2/01/11	34	10.6	9.9	11.1
FRY CANYON		6700	1/26/11	15	5.4	6.6	6.0
GOLD CREEK		6600	1/26/11	19	5.9	4.5	4.2
GRANITE PEAK SNOTEL		7800	2/01/11	49	16.3	8.7	14.2
JACK CREEK, U SNOTEL		7280	2/01/11	36	9.4	9.2	11.4
LAMANCE CREEK SNOTEL		6000	2/01/11	20	5.8	7.0	9.4
LAUREL DRAW SNOTEL		6700	2/01/11	24	6.4	7.2	7.2
LITTLE BALLY MTN.	AM	6000	1/27/11	28	10.6	5.0	3.0
MERRIT MOUNTAIN	AM	7000	1/27/11	15	4.7	4.4	5.6
MIDAS	(d)	7200	1/27/11	13	4.0	4.0	2.8
QUINN RIDGE	AM	6300	1/28/11	11	3.6	2.0	2.1
SEVENTYSIX CK SNOTEL		7100	2/01/11	27	6.9	5.1	7.9
STAG MOUNTAIN	AM	7700	1/27/11	24	7.4	1.5	4.2
TAYLOR CANYON SNOTEL		6200	2/01/11	14	4.3	3.4	3.9
TOE JAM	AM	7700	1/27/11	21	6.5	3.5	6.9
TREMEWAN RANCH		5700	1/26/11	4	1.7	3.1	1.7

(d) denotes discontinued site.

Basin Outlook Reports: How Forecasts Are Made

Federal – State – Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

**USDA, Natural Resources Conservation Service
Snow Survey Office
1201 NE Lloyd Suite 900
Portland, OR 97232**

Phone: (503) 414-3270

Web site: <http://www.or.nrcs.usda.gov/snow/index.html>

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Interpreting Water Supply Forecasts

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

90 Percent Chance of Exceedance Forecast. There is a 90 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 10 percent chance that the actual streamflow volume will be less than this forecast value.

70 Percent Chance of Exceedance Forecast. There is a 70 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 30 percent chance that the actual streamflow volume will be less than this forecast value.

50 Percent Chance of Exceedance Forecast. There is a 50 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 50 percent chance that the actual streamflow volume will be less than this forecast value. Generally, this forecast is the middle of the range of possible streamflow volumes that can be produced given current conditions.

30 Percent Chance of Exceedance Forecast. There is a 30 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 70 percent chance that the actual streamflow volume will be less than this forecast value.

10 Percent Chance of Exceedance Forecast. There is a 10 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 90 percent chance that the actual streamflow volume will be less than this forecast value.

*Note: There is still a 20 percent chance that actual streamflow volumes will fall either below the 90 percent exceedance forecast or above the 10 percent exceedance forecast.

These forecasts represent the uncertainty inherent in making streamflow predictions. This uncertainty may include sources such as: unknown future weather conditions, uncertainties associated with the various prediction methodologies, and the spatial coverage of the data network in a given basin.

30-Year Average. The 30-year average streamflow for each forecast period is provided for comparison. The average is based on data from 1971-2000. The % AVG. column compares the 50% chance of exceedance forecast to the 30-year average streamflow; values above 100% denote when the 50% chance of exceedance forecast would be greater than the 30-year average streamflow.

AF - Acre-feet, forecasted volume of water are typically in thousands of acre-feet.

These forecasts are given to users to help make risk-based decisions. Users can select the forecast corresponding to the level of risk they are willing to accept in order to minimize the negative impacts of having more or less water than planned for.

To Decrease the Chance of Having Less Water than Planned for: A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive less than this amount). To reduce the risk of having less water than planned for, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded such as the 90 or 70 percent exceedance forecasts.

To Decrease the Chance of Having More Water than Planned for: A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive more than this amount). To reduce the risk of having more water than planned for, users can base their operational decisions on one of the forecasts with a lesser chance of being exceeded such as the 30 or 10 percent exceedance forecasts.

Using the forecasts - an Example

Using the 50 Percent Exceedance Forecast. Using the example forecasts shown below, there is a 50% chance that actual streamflow volume at the Boise River near Twin Springs will be less than 685 KAF between April 1 and July 31. There is also a 50% chance that actual streamflow volume will be greater than 685 KAF.

Using the 90 and 70 Percent Exceedance Forecasts. If an unexpected shortage of water could cause problems (such as irrigated agriculture), users might want to plan on receiving 610 KAF (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 610 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 443 KAF (from the **90**

percent exceedance forecast). There is 10% chance of receiving less than 443 KAF.

Using the 30 or 10 Percent Exceedance Forecasts. If an unexpected excess of water could cause problems (such as operating a flood control reservoir), users might plan on receiving 760 KAF (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 760 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 927 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 927 KAF.

Users could also choose a volume in between any of these values to reflect their desired risk level.

OWYHEE AND MALHEUR BASINS Streamflow Forecasts - February 1, 2006

		<<===== Drier ===== Future Conditions ===== Wetter =====>>							
Forecast Point	Forecast Period	Chance Of Exceeding *							
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)	
MALHEUR near Drewsey	FEB-JUL	148	184	210	165	238	282	127	
	APR-SEP	87	110	128	168	147	177	76	
NF MALHEUR at Beulah	FEB-JUL	108	127	141	157	156	178	90	
	APR-SEP	341	473	575	134	687	869	430	
OWYHEE RESV INFLOW (2)	FEB-JUL	602	792	935	134	1090	1340	700	
	APR-SEP	341	473	575	134	687	869	430	

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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Official Business



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<http://www.or.nrcs.usda.gov/snow/watersupply/>

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